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DERWENT-ACC-NO: 1996-485891

DERWENT-WEEK: 200342

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TITLE: Radio-interrogated passive sensor - uses impedance element as sensor part connected electrically to acoustic surface wave structure for varying pulse response of surface wave device.

INVENTOR: MAGORI, V; OSTERTAG, T ; REINDL, L ; RUILE, W ; SCHOLL, G

## PATENT-ASSIGNEE:

ASSIGNEE	CODE
SIEMENS AG	SIEI

PRIORITY-DATA: 1995DE-1014343 (April 18, 1995)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9633423 A1	October 24, 1996	G	015	G01S013/75
EP 821796 A1	February 4, 1998	G	000	
JP 11504112 W	April 6, 1999		014	G01L009/00
US 6084503 A	July 4, 2000		000	H04Q005/22
EP 821796 B1	May 30, 2001	G	000	G01S013/75
DE 59607006 G	July 5, 2001		000	G01S013/75
CN 1181814 A	May 13, 1998		000	G01S013/75
US 6556146 B1	April 29, 2003		000	G08C019/38

DESIGNATED-STATES: CN JP US AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE DE FR GB DE FR GB

CITED-DOCUMENTS:DE 4336504; EP 166065 ; US 5289160 ; WO 9313495

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
WO 9633423A1	March 18, 1996	1996WO-DE00471	
EP 821796A1	March 18, 1996	1996EP-0905742	
EP 821796A1	March 18, 1996	1996WO-DE00471	
EP 821796A1		WO 9633423	Based on
JP 11504112W	March 18, 1996	1996JP-0531390	
JP 11504112W	March 18, 1996	1996WO-DE00471	
JP 11504112W		WO 9633423	Based on
US 6084503A	March 18, 1996	1996WO-DE00471	
US 6084503A	October 17, 1997	1997US-0945294	
US 6084503A		WO 9633423	Based on
EP 821796B1	March 18, 1996	1996EP-0905742	
EP 821796B1	March 18, 1996	1996WO-DE00471	
EP 821796B1		WO 9633423	Based on
DE 59607006G	March 18, 1996	1996DE-0507006	
DE 59607006G	March 18, 1996	1996EP-0905742	
DE 59607006G	March 18, 1996	1996WO-DE00471	
DE 59607006G		EP 821796	Based on
DE 59607006G		WO 9633423	Based on
CN 1181814A	March 18, 1996	1996CN-0193349	
US 6556146B1	March 18, 1996	1996WO-DE00471	Div ex
US 6556146B1	October 17, 1997	1997US-0945294	Div ex
US 6556146B1	February 9, 2000	2000US-0501520	
US 6556146B1		US 6084503	Div ex

INT-CL (IPC) : G01 L 9/00; G01 S 13/75; G01 S 13/76; G01 S 13/79; G08 C 19/38; H03 H 9/145; H04 B 1/40; H04 Q 5/22

ABSTRACTED-PUB-NO: EP 821796B

BASIC-ABSTRACT:

The sensor uses a surface wave device with surface wave structures (23,26) and an antenna (24), an impedance element (12) used as the sensor part and a HF transmitter and receiver (30,31) coupled to a radio antenna, with an electronic evaluation stage.

The sensor part is electrically coupled to at least one of the surface wave structures, the impedance value causing a variation in the pulse response of the surface wave device in response to a received interrogation pulse, for qualitative/quantitative evaluation of the detected parameter.

USE/ADVANTAGE - For detecting physical or chemical parameters, e.g. flexure, pressure, or temp. Allows remote interrogation via transmitted radio signal.  
ABSTRACTED-PUB-NO:

US 6084503A

EQUIVALENT-ABSTRACTS:

The sensor uses a surface wave device with surface wave structures (23,26) and an antenna (24), an impedance element (12) used as the sensor part and a HF transmitter and receiver (30,31) coupled to a radio antenna, with an electronic evaluation stage.

The sensor part is electrically coupled to at least one of the surface wave structures, the impedance value causing a variation in the pulse response of the surface wave device in response to a received interrogation pulse, for qualitative/quantitative evaluation of the detected parameter.

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The sensor part is electrically coupled to at least one of the surface wave structures, the impedance value causing a variation in the pulse response of the surface wave device in response to a received interrogation pulse, for qualitative/quantitative evaluation of the detected parameter.

USE/ADVANTAGE - For detecting physical or chemical parameters, e.g. flexure, pressure, or temp. Allows remote interrogation via transmitted radio signal.

WO 9633423A

CHOSEN-DRAWING: Dwg.3/3

TITLE-TERMS: RADIO INTERROGATION PASSIVE SENSE IMPEDANCE ELEMENT SENSE PART CONNECT ELECTRIC ACOUSTIC SURFACE WAVE STRUCTURE VARY PULSE RESPOND SURFACE WAVE DEVICE

DERWENT-CLASS: S02 V06 W02 W05 W06

EPI-CODES: S02-K03A; S02-K08A; V06-K02; V06-L01A2; W02-G05B; W05-D04A5; W06-A04B;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N1996-409280